

REMARKS/ARGUMENTS

Claims 1-11 and 14-20 now stand in the present application, claims 1, 11 and 14-20 having been amended and claims 12 and 13 having been canceled. Applicants note with appreciation the Examiner's indication of allowable subject matter in claims 5-10 but respectfully submit that in view of the above amendments and the following remarks, that all of the claims standing in this case are in condition for allowance. Accordingly, reconsideration and favorable action is respectfully requested.

In the Office Action the Examiner has objected to claim 12 as depending improperly from claim 13. As noted above, Applicants have canceled claims 12 and 13 but incorporated their features into independent claim 1. Accordingly, the Examiner's objection to claim 12 is believed to be moot.

The Examiner has also rejected claims 1-3 and 11-19 under 35 U.S.C. § 102(e) as being anticipated by Rosen et al. (hereinafter "Rosen"). Applicants respectfully traverse the Examiner's § 102 rejection of the claims.

Applicants have amended claim 1 to include the features of claims 12 and 13. Similar amendments have been made to independent claims 14, 17 and 18. Furthermore, the term "measured characteristics" has been amended to read "measured data transmission characteristics." Support for this amendment can be found on page 5, lines 31-33; page 3, lines 12-14; and page 12, lines 5-30, which describe the transmission of data over the digital subscriber line and the subsequent measurement of the data transmitted. Accordingly, independent claims 1, 14, 17 and 18 now all describe measurement of data transmission characteristics, and where those characteristics comprise "characteristics relating to the transmission of data...within a

plurality of predetermined frequency bands representing the bin occupancy distribution of discrete multi tones."

It is respectfully submitted that Rosen fails to disclose all of the features of claim 1. In particular, Rosen does not deal with "data transmission characteristics" and the specific situation where those characteristics represent "the bin occupancy distribution of discrete multi tones." It is clear from the specific wording of claim 1 (and the corresponding text in the description), that claim 1 is limited to features at the data level. From the description on page 7, lines 17-23 of the present application, it is clear that "bin occupancy" in relation to "discrete multi tones" is defined at the data level, or more precisely, at the bit level. In contrast, Rosen deals only with electric measurements and electrical properties. There is no discussion of how the measurement of electrical properties could be extended to "data transmission characteristics" and specifically to "the bin occupancy distribution of discrete multi tones" as now required by claim 1. It is clear from the teachings in Rosen that the measurements are far from the data/bit level measurements that are effectively defined in the present claims. In Rosen, there is described the use of voltmeters for measuring amplitudes and phases, as well as impedances and other similar measurements at a physical level. The Examiner's attention is directed towards the following portions of text which clearly describe these electrical (or physical) measurements: column 2, lines 1-4; column 3, lines 61-66; column 5, lines 13-16; column 7, lines 33-56; column 8, lines 11-23; column 10, line 66 to column 11, line 22; and generally throughout the description.

Furthermore, the text cited by the Examiner against claim 1 in column 9, line 14 to column 10, line 27 of Rosen also fails to specifically describe or suggest any

reference to using a "bin occupancy distribution of discrete multi tones" as claimed. As already submitted, Rosen only discloses measurements at an electrical (or physical) level, compared to measurements at a data transmission (or bit) level in Applicants' invention.

Still further, Rosen clearly specifies in column 7, lines 41-46, that the driving frequencies of the signals used for testing are between about 100 Hz to 20,000 kHz, which are very low compared to the [data] transmission frequencies of high speed data services, such as ISDN and ASDL. In short, in embodiments of the present invention, the bits carries over the digital subscriber line are used as input for the testing and data transmission characteristics are measured. In contrast, Rosen uses low frequency test signals, and takes electrical measurements to determine the physical properties of the line.

Accordingly, all of independent claims 1, 14, 17 and 18 and their respective dependent claims are believed to patentably define over Rosen.

The Examiner has also rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Schmidt et al. in view of Haines and has rejected claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Schmidt et al. in view of Sisk et al. It is respectfully believed that the Examiner's reliance on Schmidt et al. is a typographical error in that the rejections of claim 4 and 20 apply Rosen in combination with Haines with respect to claim 4 and Rosen in combination with Sisk et al. with respect to claim 20. Moreover, these claims are believed to patentably define over the combination of references for the reasons given above since it is respectfully submitted that neither Haines nor Sisk et al. solve the deficiencies noted above with respect to Rosen.

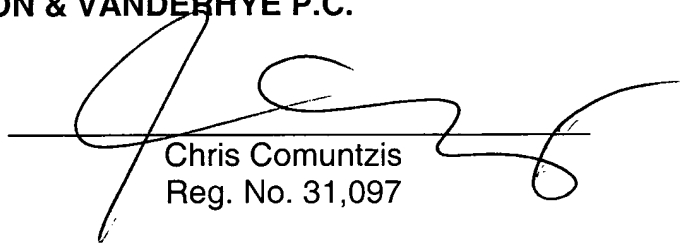
LUNT et al
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Therefore, in view of the above amendments and remarks, it is respectfully requested that the application be reconsidered and that all of claims 1-11 and 14-20, now standing in the application, be allowed and that the case be passed to issue. If there are any other issues remaining which the Examiner believes could be resolved through either a supplemental response or an Examiner's amendment, the Examiner is respectfully requested to contact the undersigned at the local telephone exchange indicated below.

Respectfully submitted,

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